AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (Currently amended). A method of inducing a necrotic effect in specific cells of a plant ~~wherein a plant is transformed, with~~ comprising, exposing said plant to a pathogen or a chemical or stimulating the natural development of said plant, said plant comprising a chimaeric gene comprising, ~~the~~ a coding sequence of ~~said gene coding for~~ a mature pokeweed antiviral protein or part thereof~~, said gene comprising~~ and, a promoter which ~~acts~~ is induced in said specific cells in response to the ~~application~~ exposure of ~~a specific stimulus to~~ said plant to said pathogen or chemical, or a promoter which is induced in said specific cells upon the natural development of said plant, such that said mature pokeweed antiviral protein or part thereof is expressed in specific cells of said plant thereby inducing a necrotic effect in said specific cells, with the proviso that the specific cells do not consist of pollen cells .

2 (Currently amended). A method of inducing a necrotic effect in specific cells of a plant ~~according to Claim 1, wherein said~~ comprising, exposing said plant to a pathogen or a chemical or stimulating the natural development of said plant, said plant comprising a chimaeric gene ~~encodes the~~ comprising, a coding sequence of a mature PAP-S protein, said coding sequence being that depicted in ~~SEQ. ID. No.:3~~ SEQ ID NO:3 or a sequence having the same functionality and being at least 70% homologous thereto, ~~and~~ or said mature PAP-S protein having the amino acid sequence being that depicted in ~~SEQ. ID. No.:4~~ SEQ ID NO:4 or a sequence having the same functionality and being at least 80% homologous therewith, said chimaeric gene further comprising a promoter which is induced in said specific cells in response to the exposure of said plant to said pathogen or chemical, or a promoter which is

induced in said specific cells upon the natural development of said plant, such that said mature PAP-S protein or part thereof is expressed in specific cells of said plant thereby inducing a necrotic effect in said specific cells.

3 (Currently amended). A method of inducing a necrotic effect in specific cells of a plant ~~according to Claim 1, wherein said~~ comprising, exposing said plant to a pathogen or a chemical or stimulating the natural development of said plant, said plant comprising a chimaeric gene ~~encodes the~~ comprising, a coding sequence of a PAP-S α protein, said coding sequence being depicted in ~~SEQ. ID. No.:5~~ SEQ ID NO:5 or a sequence having the same functionality and being at least 70% homologous thereto, ~~and~~ or said PAP-S α protein having the amino acid sequence being that depicted in ~~SEQ. ID. No.: 6~~ SEQ ID NO:6 or a sequence having the same functionality and being at least 80% homologous therewith, said chimaeric gene further comprising a promoter which is induced in said specific cells in response to the exposure of said plant to said pathogen or chemical, or a promoter which is induced in said specific cells upon the natural development of said plant, such that said PAP-S α protein or part thereof is expressed in specific cells of said plant thereby inducing a necrotic effect in said specific cells.

4 (Currently amended). A method of inducing a necrotic effect in specific cells of a plant ~~according to Claim 1, wherein said~~ comprising, exposing said plant to a pathogen or a chemical or stimulating the natural development of said plant, said plant comprising a chimaeric gene ~~encodes the~~ comprising, a coding sequence of a PAP-S β protein, said coding sequence being that depicted in ~~SEQ. ID. No.:7~~ SEQ ID NO:7 or a sequence having the same functionality and being at least 70% homologous therewith ~~and~~ or said PAP-S β protein having the amino acid sequence being that depicted in ~~SEQ. ID. No.:8~~ SEQ ID NO:8 or a sequence having the same functionality and being at least 80% homologous therewith, said

chimaeric gene further comprising a promoter which is induced in said specific cells in response to the exposure of said plant to said pathogen or chemical, or a promoter which is induced in said specific cells upon the natural development of said plant, such that said PAP-S β protein or part thereof is expressed in specific cells of said plant thereby inducing a necrotic effect in said specific cells.

5-21 (Canceled)

22 (Currently amended). A method of inducing a necrotic effect in specific cells of a plant~~, wherein the plant is transformed~~ comprising, exposing said plant to a pathogen or a chemical or stimulating the natural development of said plant, said plant comprising a chimaeric gene comprising, ~~the~~ a coding sequence of ~~said gene coding for~~ a precursor PAP molecule or a C-terminal deletion thereof ~~, said gene comprising~~ and, a promoter which ~~acts~~ is induced in said specific cells in response to the ~~application~~ exposure of ~~a specific stimulus to~~ said plant to said pathogen or chemical, or a promoter which is induced in said specific cells upon the natural development of said plant, such that ~~the protein expressed by said coding sequence is expressed in specific cells of said plant said promoter being appropriately selected to provide either nematode infection disruption, sterility, changes in flower morphology, abscission, seed release or trichome development.~~ said precursor PAP molecule or a C-terminal deletion thereof is expressed in specific cells of said plant, thereby inducing a necrotic effect in said specific cells.

23 (Currently amended). ~~A~~The method of inducing a necrotic effect in specific cells of a plant according to Claim 22, wherein said coding sequence encodes the Pro-PAP-S protein.

24 (Currently amended). ~~A~~The method of inducing a necrotic effect in specific cells of a plant according to Claim 22, wherein said coding sequence is that depicted in ~~SEQ. ID. No.: 1~~ SEQ ID NO:1 or a sequence at least 70% homologous thereto and the amino acid sequence is that depicted in SEQ. ID. No.: 2 or a sequence at least 80% homologous thereto.

25-27 (Canceled)

28 (Currently amended). ~~A~~The method of inducing a necrotic effect in specific cells of a plant according to any one of Claims ~~1-28~~ 2, 3, 4, 22, or 24, wherein said promoter is ~~selected to provide one of the following: nematode infection disruption, sterility, changes in flower morphology, abscission, seed release or trichome development~~ induced in pollen cells, cells adjacent to pollen cells, anther cells, cells adjacent to anther cells, tapetum cells, cells adjacent to tapetum cells, ovule cells, cells adjacent to ovule cells, cells at a nematode feeding site, cells adjacent to a nematode feeding site cells, cells at an abscission zone, cells adjacent to an abscission zone, sepal cells, carpel cells, stamen cells, cells adjacent to sepal cells, cells adjacent to carpel cells, cells adjacent to stamen cells, trichome cells, cells adjacent to trichome cells, seed cells, or cells adjacent to seed cells.

29 (Currently amended). A plant ~~transformed by~~ comprising specific cells in which a necrotic effect is induced by the method ~~according to~~ of any one of Claims ~~1-28~~ 1, 2, 3, 4, 22 or 24.

30 (Canceled)

31 (Currently amended). A DNA isolate of a chimaeric gene ~~in combination with~~ of ~~the method of any one of~~ Claim ~~1-28~~ 4.

32 (Canceled)

33 (New). The method of Claim 1, wherein said promoter is induced in cells adjacent to pollen cells, anther cells, cells adjacent to anther cells, tapetum cells, cells adjacent to tapetum cells, ovule cells, cells adjacent to ovule cells, cells at a nematode feeding site, cells adjacent to a nematode feeding site cells, cells at an abscission zone, cells adjacent to an abscission zone, sepal cells, carpel cells, stamen cells, cells adjacent to sepal cells, cells adjacent to carpel cells, cells adjacent to stamen cells, trichome cells, cells adjacent to trichome cells, seed cells, or cells adjacent to seed cells.

34 (New). The method of Claim 1, wherein said coding sequence encodes a mature PAP-S protein, a pro-PAP-S protein, a PAP-S β protein, or PAP-S α protein.

35 (New). The method of any one of Claims 1, 2, 3, 4, 22, or 24, wherein the necrotic effect induced results in disruption of nematode infection, sterility, changes in flower morphology, abscission, seed release, or prevention of trichome development.

36 (New). A method of inducing a necrotic effect in specific cells of a plant comprising:

a) transforming plant cells with a chimaeric gene comprising a coding sequence of a mature pokeweed antiviral protein or part thereof and a promoter;
b) regenerating a plant from said transformed cells, and
c) exposing said plant to a pathogen or a chemical, or stimulating the natural development of said plant,

such that said mature pokeweed antiviral protein or part thereof is expressed in specific cells of said plant, thereby inducing a necrotic effect in said specific cells, wherein said promoter is induced in (i) said specific cells upon the natural development of said plant or (ii) said specific cells in response to the exposure of said plant to a pathogen or chemical.

37 (New). A method of inducing a necrotic effect in specific cells of a plant comprising:

a) transforming plant cells with a chimaeric gene comprising a coding sequence of a precursor PAP molecule or a C-terminal deletion thereof and a promoter;
b) regenerating a plant from said transformed cells, and
c) exposing said plant to a pathogen or a chemical, or stimulating the natural development of said plant,

such that said precursor PAP molecule or a C-terminal deletion thereof is expressed in specific cells of said plant, thereby inducing a necrotic effect in said specific cells, wherein said promoter is induced in (i) said specific cells upon the natural development of said plant or (ii) said specific cells in response to the exposure of said plant to a pathogen or chemical.

38 (New). The method of any of claims 1, 22, 23, 24, 36, or 37, wherein the pathogen is *Globodera* spp., *Heterodera* spp., *Meloidogyne* spp., or a virus.